

REMARKS

Timing of Response

On 04/14/04, a notice of non-compliant amendment was issued by the Patent Office.

On 04/16/04, an office action was issued by the Patent Office.

On 05/13/04, the Applicants filed a response to notice of non-compliant amendment, not having reviewed the 04/16/04 office action.

On 07/19/04, an office action was issued by the patent office, noting that the Applicants' filing of 05/13/04 did not respond to all issues raised in the 04/16/04 office action, and setting a one-month date for reply.

This response addresses issues raised in the 04/16/04 office action, and given the 07/19/04 office action, is believed to be timely filed without any extension of time.

Claim Status

Claims 23-32 and 54-70 were previously pending. Claims 23-32, 65 and 66 have been canceled without prejudice. Claim 67 has been amended. Claims 54-64, 67-70 are currently pending in the application.

Claim 67 has been amended by reciting that a concentrated solution and a less concentrated solution of a substance are combined under conditions of substantially laminar flow. Support for the amendment may be found, for example, at page 17, lines 23-24, of the application as filed.

Double Patenting Rejection

Claims 23-32, 65 and 66 were rejected under 35 U.S.C. 101 as claiming the same invention as the claims 21-30, 38 and 56 of United States Patent No. 6,705,357. These claims have been canceled without prejudice, thus obviating the double patenting rejection. Withdrawal of the rejection is respectfully requested.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 54-64 under 35 U.S.C. §102(b) as being anticipated by Frechet, et al., U.S. Patent No. 5,728,457 (Frechet).

Frechet describes a method of making porous polymeric matrix materials having a property gradient selected from pore size distribution, chemical composition or a combination thereof. Applicants fail to see where Frechet discloses the invention as recited in independent claim 54.

The Office Action points to Frechet Example 5. In example 5, Frechet describes a method for making a continuous plug with both internal and longitudinal gradients of polymerized material. (Frechet at col. 10, line 54 through col. 11, line 31). The resulting continuous plug includes a first end having a porous copolymer rich in octyl-methacrylate and ethylene dimethacrylate and a second end having a glycidyl methacrylate-ethylene dimethacrylate matrix filled with octyl-methacrylate-ethylene dimethacrylate co-polymer and a gradient therebetween changing from one composition to the other. Applicants fail to see where Frechet discloses a fluid comprising a concentration gradient, as recited in independent claim 54. Nor does Frechet disclose a concentration gradient being substantially perpendicular to the direction of flow, as recited in claim 54. Applicants also fail to see where Frechet teaches any fluid having a concentration gradient. Thus, independent claim 54 is patentable over Frechet.

As claims 55-65 depend either directly or indirectly from independent claim 54, they are patentable for at least the above-mentioned reasons. Withdrawal of the rejection is respectfully requested.

Claims 67-70 have been rejected under 35 U.S.C. §102(b) as being anticipated by M.R. Dennison, U.S. Patent No. 3,417,770 (Dennison). Dennison fails to disclose each and every element of amended claim 67. Dennison describes a multi-media fluid amplifier system where a first fluid flowing through a first fluid amplifier and a jet pump controls the flow of a second fluid flowing through a second fluid amplifier. In some cases, the jet pump may cause a first fluid to mix with a second. (Dennison at col. 5, lines 54-56). Applicants fail to see where Dennison discloses contacting a concentrated solution of a substance and a less concentrated solution of the substance, under conditions of substantially laminar flow, to form a combined fluid, as recited in amended claim 67. Thus, claim 67 is patentable over Dennison. As claims 68-70 depend either directly or indirectly from claim 67, they are patentable for at least the above-mentioned reasons. Withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
Noo Li Jeon, et al., Applicants

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